STAT 515, Statistical Methods I -- Spring 2011

Instructor:
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Course Web Page: http://www.stat.sc.edu/~hitchcock/stat515.html
(Also accessible via Blackboard)

Classes:
Meeting Times: Tuesday and Thursday 12:30 p.m.- 1:45 p.m., LeConte College 210B

Office Hours:
Mon 1:00 p.m.-2:00 p.m., Tues 11:00-11:55 a.m., Wed 1:00 p.m.- 2:00 p.m., Thu 11:00-11:55 a.m., Fri 10:30-11:30 a.m., or **please feel free** to make an appointment to see me at other times.

Textbook:
Statistics (11th Edition), by J.T. McClave and T. Sincich, Prentice Hall, 2009.

Course Outline: Chapters 1 − 11 and 13 of the McClave & Sincich textbook. Topics covered include: descriptive statistics, elementary probability, sampling distributions, estimation, hypothesis testing, simple linear regression, and contingency tables.

Grading:
The course grade will be based on quiz average (20%), the two midterm exams (25% each), and a final exam (30%). The overall course average will result in the following grades: 90-100 = A, 87-89 = B+, 80-86 = B, 77-79 = C+, 70-76 = C, 67-69 = D+, 60-66 = D, 59 and below = F.

Homework:
Homework exercises from the textbook will be assigned on the course web page. These homework exercises will not be collected, but it is important that you do them each day, because we will have a quiz almost every class in this section. The quiz problem(s) will be very similar or identical to one or more of the assigned homework problems.

Answers (in some cases incomplete answers, however) to many odd-numbered problems are given in the back of the book. The assigned homework problems will be odd-numbered problems.

Since the homework is not collected for a grade, I encourage you to work together with other students on the homework outside class. Of course, the in-class quizzes must be done *on your own*.

Quizzes:
We will have a quiz during **every** class, beginning Tuesday, January 18 (except dates when exams are scheduled). This makes a total of 24 quizzes. Your best 18 quiz grades will make up your quiz average. You will not be allowed to make up any quizzes; if you miss a quiz, this will be one of the quiz grades that are dropped when the quiz average is calculated.

The quiz problem(s) will be very similar or identical to one or more of the assigned homework problems. You will not be allowed to use notes for the quizzes. Quizzes will usually be given near the end of class each day, but may be given at the beginning of class occasionally.

Exams:
There will be two in-class midterm exams (February 10 and March 24) and a final exam on May 4. Exams may not normally be made up, except in extreme circumstances, for which written documentation of excuse (doctor's note, funeral notice, etc.) is required. If you suspect you may miss an exam day, it is important to contact me well in advance of the test date.

Project (Graduate Student or Extra Credit):
Any students enrolling in the course for graduate credit must do a data-analysis project that will count for one-quarter of their quiz grade. This project will be completed in two parts, one part midway through the semester and another part near the end of the semester. This project may be done by undergraduate students for a small amount of extra credit. Students are encouraged to work in groups of up to 3 people on the project. Detailed information about the project will be handed out soon.

Computing:
Some problems in this course involve significant computations, and for these, we will learn to use the statistical software R. You can download R for free; instructions are given on the course web page.

For statistics majors, SAS is also an important software package. For some analyses, we will see examples of using SAS and how it compares to R. In many industries and jobs, SAS is the standard statistical computing package used, and this course will introduce you to some common SAS procedures.

Course Schedule: Tues-Thurs, January 11 through April 21, except:
No class (Spring Break): March 8, 10 (Tuesday, Thursday)

February 10: Exam 1
March 24: Exam 2
Wednesday, May 4 (2:00 p.m.): final exam